

Title (en)
METHOD AND SYSTEM FOR DELIVERING A GASEOUS FUEL INTO THE AIR INTAKE SYSTEM OF AN INTERNAL COMBUSTION ENGINE

Title (de)
VERFAHREN UND SYSTEM ZUR ABGABE EINES GASFÖRMIGEN KRAFTSTOFFS IN DAS LUFTEINLASSSYSTEM EINES
VERBRENNUNGSMOTORS

Title (fr)
PROCÉDÉ ET SYSTÈME POUR DÉLIVRER UN CARBURANT GAZEUX DANS LE SYSTÈME D'ADMISSION D'AIR D'UN MOTEUR À
COMBUSTION INTERNE

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Application
EP 13857182 A 20131122

Priority
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Abstract (en)
[origin: CA2796794A1] A method and system is disclosed for delivering a cryogenically stored fuel in a gaseous state into the air intake system of a gaseous fuelled internal combustion engine. The method comprises measuring the pressure in the vapor space of the cryogenic storage vessel, comparing the measured pressure to a required fuel supply pressure and supplying fuel in gaseous state directly from the vapor space of the cryogenic storage vessel to the fuel delivery line that supplies fuel to the engine, when the pressure measured in the vapor space of the cryogenic storage vessel is equal to or higher than the required fuel supply pressure. The method further comprises activating a cryogenic pump to deliver fuel to the internal combustion engine from the liquid space of the cryogenic storage vessel when the measured pressure in the vapor space is lower than the required fuel supply pressure.

IPC 8 full level
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Citation (search report)
• [A] WO 2012040835 A1 20120405 - WESTPORT POWER INC [CA], et al
• [A] US 5329908 A 19940719 - TARR YUL J [US], et al
• [A] FR 2690223 A1 19931022 - LINDE AG [DE]
• [A] WO 2007031848 A2 20070322 - TOYOTA MOTOR CO LTD [JP], et al
• See references of WO 2014078962A1

Cited by
CN113533265A; DE102018211173A1

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